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December 31, 2018

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

Re: **Duke Energy Progress, LLC–Monthly Power Plant Performance Report
Docket No. 2006-224-E**

Dear Ms. Boyd:

Pursuant to the Commission's Orders in Docket No. 1977-354-E, enclosed for filing is the Monthly Power Plant Performance Report in Docket No. 2006-224-E for the month of November 2018.

Should you have any questions regarding this matter, please do not hesitate to contact me at 803.988.7130.

Sincerely,

Rebecca J. Dulin

Enclosure

cc: Ms. Dawn Hipp, Office of Regulatory Staff
Mr. Jeffrey M. Nelson, Office of Regulatory Staff
Ms. Nanette Edwards, Office of Regulatory Staff
Michael Seaman-Huynh, Office of Regulatory Staff
Ms. Heather Shirley Smith, Duke Energy
Mr. Scott Elliott, Elliott & Elliott, P.A.
Mr. Garrett Stone, Brickfield, Burchette, Ritts & Stone, PC
Mr. Gary Walsh, Walsh Consulting, LLC

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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Period: November, 2018

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
Brunswick	1	None					
	2	None					
Harris	1	None					
Robinson	2	10/29/2018 - 11/26/2018	617.70	Scheduled	Outage extended 25.74 days due to ongoing transmission project	Transmission upgrade project work taking longer than scheduled	Completed transmission upgrade project work

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November 2018**

Lee Energy Complex

No Outages at Baseload Units During the Month.

Richmond County Station

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
8	11/15/2018 8:22:00 AM To 11/16/2018 4:51:00 AM	Unsch	3612 Switchyard System Protection Devices	Failed cable on sudden pressure relay.	

Sutton Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
1B	10/31/2018 10:14:00 AM To 11/6/2018 8:39:00 AM	Unsch	9320 Other Miscellaneous External Problems	Unit tripped to Blade Path differential due to nozzle fouling	
1B	11/14/2018 5:20:00 AM To 11/14/2018 4:09:00 PM	Unsch	5110 Gas Turbine - Lube Oil System - General	Lift Oil Pump Tripping with unit on turning gear	
ST1	9/21/2018 12:16:00 AM To 12/11/2018 9:33:00 PM	Unsch	9000 Flood	Plant shutdown due to post hurricane flooding	

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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November 2018
Brunswick Nuclear Station

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	938	932		
(B) Period Hours	721	721		
(C) Net Gen (mWh) and Capacity Factor (%)	696,058	102.92	671,942	100.00
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	3,727	0.55
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-19,760	-2.92	-3,697	-0.55
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	676,298	100.00%	671,972	100.00%
(K) Equivalent Availability (%)		100.00		99.36
(L) Output Factor (%)		102.92		100.00
(M) Heat Rate (BTU/NkWh)		10,361		10,627

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**November 2018
Harris Nuclear Station**

Unit 1

(A) MDC (mW)	932	
(B) Period Hours	721	
(C) Net Gen (mWh) and Capacity Factor (%)	721,164	107.32
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-49,192	-7.32
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	671,972	100.00%
(K) Equivalent Availability (%)		100.00
(L) Output Factor (%)		107.32
(M) Heat Rate (BTU/NkWh)		10,041

* Estimate

FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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November 2018
Robinson Nuclear Station

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	721	
(C) Net Gen (mWh) and Capacity Factor (%)	9,127	1.71
(D) Net mWh Not Gen due to Full Schedule Outages	457,716	85.67
* (E) Net mWh Not Gen due to Partial Scheduled Outages	67,418	12.62
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	0	0.00
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	534,261	100.00%
(K) Equivalent Availability (%)		2.78
(L) Output Factor (%)		11.92
(M) Heat Rate (BTU/NkWh)		26,101

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November 2018**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,059
(B) Period Hrs	721	721	721	721	721
(C) Net Generation (mWh)	141,011	138,989	141,258	265,032	686,290
(D) Capacity Factor (%)	86.92	84.92	85.93	96.99	89.88
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	19,828	20,549	20,909	360	61,645
(H) Scheduled Derates: percent of Period Hrs	12.22	12.56	12.72	0.13	8.07
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	1,387	4,130	2,221	7,867	15,604
(N) Economic Dispatch: percent of Period Hrs	0.85	2.52	1.35	2.88	2.04
(O) Net mWh Possible in Period	162,225	163,667	164,388	273,259	763,539
(P) Equivalent Availability (%)	87.78	87.44	87.28	99.87	91.93
(Q) Output Factor (%)	86.92	84.92	85.93	96.99	89.88
(R) Heat Rate (BTU/NkWh)	8,826	8,920	8,718	4,384	7,107

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November 2018**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	189	189	175	553
(B) Period Hrs	721	721	721	721
(C) Net Generation (mWh)	116,333	112,671	125,274	354,278
(D) Capacity Factor (%)	85.37	82.68	99.29	88.86
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	12,618	12,609	2,163	27,390
(H) Scheduled Derates: percent of Period Hrs	9.26	9.25	1.71	6.87
(I) Net mWh Not Generated due to Full Forced Outages	0	3,871	0	3,871
(J) Forced Outages: percent of Period Hrs	0.00	2.84	0.00	0.97
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	1,680	1,680
(L) Forced Derates: percent of Period Hrs	0.00	0.00	1.33	0.42
(M) Net mWh Not Generated due to Economic Dispatch	7,319	7,117	0	14,436
(N) Economic Dispatch: percent of Period Hrs	5.37	5.22	0.00	3.62
(O) Net mWh Possible in Period	136,269	136,269	126,175	398,713
(P) Equivalent Availability (%)	90.74	87.91	96.95	91.74
(Q) Output Factor (%)	85.37	85.10	99.29	89.73
(R) Heat Rate (BTU/NkWh)	10,954	10,976	0	7,087

Notes:

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- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November 2018**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	721	721	721	721
(C) Net Generation (mWh)	137,687	138,683	170,003	446,373
(D) Capacity Factor (%)	88.41	89.05	95.08	91.04
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	15,141	14,780	0	29,921
(H) Scheduled Derates: percent of Period Hrs	9.72	9.49	0.00	6.10
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	2,908	2,273	8,805	13,986
(N) Economic Dispatch: percent of Period Hrs	1.87	1.46	4.92	2.85
(O) Net mWh Possible in Period	155,736	155,736	178,808	490,280
(P) Equivalent Availability (%)	90.28	90.51	100.00	93.90
(Q) Output Factor (%)	88.41	89.05	95.08	91.04
(R) Heat Rate (BTU/NkWh)	10,973	10,877	0	6,764

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
November 2018**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	721	721	721	721
(C) Net Generation (mWh)	59,604	45,924	-194	105,334
(D) Capacity Factor (%)	36.91	28.44	0.00	20.32
(E) Net mWh Not Generated due to Full Scheduled Outages	2,688	2,688	0	5,376
(F) Scheduled Outages: percent of Period Hrs	1.66	1.66	0.00	1.04
(G) Net mWh Not Generated due to Partial Scheduled Outages	19,143	15,066	0	34,209
(H) Scheduled Derates: percent of Period Hrs	11.85	9.33	0.00	6.60
(I) Net mWh Not Generated due to Full Forced Outages	0	31,465	195,391	226,856
(J) Forced Outages: percent of Period Hrs	0.00	19.48	100.00	43.76
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	80,069	66,361	0	146,430
(N) Economic Dispatch: percent of Period Hrs	49.58	41.09	0.00	28.25
(O) Net mWh Possible in Period	161,504	161,504	195,391	518,399
(P) Equivalent Availability (%)	86.48	69.52	0.00	48.60
(Q) Output Factor (%)	84.05	82.57	0.00	83.25
(R) Heat Rate (BTU/NkWh)	10,475	10,491	0	10,501

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
November 2018**

Mayo Station

Unit 1

(A)	MDC (mW)	746
(B)	Period Hrs	721
(C)	Net Generation (mWh)	-2,286
(D)	Net mWh Possible in Period	537,866
(E)	Equivalent Availability (%)	0.00
(F)	Output Factor (%)	0.00
(G)	Capacity Factor (%)	0.00

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
November 2018**

	Roxboro Station		
	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	721	721	721
(C) Net Generation (mWh)	238,555	39,452	-286
(D) Net mWh Possible in Period	485,233	503,258	512,631
(E) Equivalent Availability (%)	71.56	10.97	0.00
(F) Output Factor (%)	70.11	69.48	0.00
(G) Capacity Factor (%)	49.16	7.84	0.00

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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December 2017 - November 2018
Brunswick Nuclear Station

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	938	932		
(B) Period Hours	8760	8760		
(C) Net Gen (mWh) and Capacity Factor (%)	7,089,436	86.28	7,569,193	92.71
(D) Net mWh Not Gen due to Full Schedule Outages	733,172	8.92	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	111,673	1.36	49,429	0.61
(F) Net mWh Not Gen due to Full Forced Outages	256,700	3.12	285,985	3.50
* (G) Net mWh Not Gen due to Partial Forced Outages	25,899	0.32	259,713	3.18
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	8,216,880	100.00%	8,164,320	100.00%
(K) Equivalent Availability (%)		86.69		93.77
(L) Output Factor (%)		98.10		96.08
(M) Heat Rate (BTU/NkWh)		10,457		10,762

* Estimate
 FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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December 2017 - November 2018
Harris Nuclear Station

Unit 1

(A) MDC (mW)	932	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	7,565,283	92.70
(D) Net mWh Not Gen due to Full Schedule Outages	756,318	9.27
* (E) Net mWh Not Gen due to Partial Scheduled Outages	20,006	0.25
(F) Net mWh Not Gen due to Full Forced Outages	97,689	1.20
* (G) Net mWh Not Gen due to Partial Forced Outages	-277,952	-3.42
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	8,161,344	100.00%
(K) Equivalent Availability (%)		89.02
(L) Output Factor (%)		103.52
(M) Heat Rate (BTU/NkWh)		10,392

* Estimate

FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

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December 2017 - November 2018
Robinson Nuclear Station

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	5,296,276	81.59
(D) Net mWh Not Gen due to Full Schedule Outages	1,297,442	19.99
* (E) Net mWh Not Gen due to Partial Scheduled Outages	91,978	1.42
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-194,536	-3.00
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	6,491,160	100.00%
(K) Equivalent Availability (%)		78.82
(L) Output Factor (%)		101.97
(M) Heat Rate (BTU/NkWh)		10,434

* Estimate

FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
December, 2017 through November, 2018**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,058
(B) Period Hrs	8,760	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,464,203	1,464,846	1,487,692	2,903,825	7,320,566
(D) Capacity Factor (%)	74.34	73.80	74.62	87.46	78.99
(E) Net mWh Not Generated due to Full Scheduled Outages	73,316	73,669	74,054	132,069	353,109
(F) Scheduled Outages: percent of Period Hrs	3.72	3.71	3.71	3.98	3.81
(G) Net mWh Not Generated due to Partial Scheduled Outages	271,178	283,193	288,469	19,136	861,976
(H) Scheduled Derates: percent of Period Hrs	13.77	14.27	14.47	0.58	9.30
(I) Net mWh Not Generated due to Full Forced Outages	9,577	4,147	0	17,030	30,754
(J) Forced Outages: percent of Period Hrs	0.49	0.21	0.00	0.51	0.33
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	8,606	8,606
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.26	0.09
(M) Net mWh Not Generated due to Economic Dispatch	151,237	158,945	143,345	239,374	692,902
(N) Economic Dispatch: percent of Period Hrs	7.68	8.01	7.19	7.21	7.48
(O) Net mWh Possible in Period	1,969,512	1,984,800	1,993,560	3,320,040	9,267,912
(P) Equivalent Availability (%)	82.04	81.85	81.85	94.67	86.46
(Q) Output Factor (%)	78.17	77.19	77.85	92.02	82.84
(R) Heat Rate (BTU/NkWh)	9,079	9,133	9,034	4,461	7,249

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
December, 2017 through November, 2018**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	189	189	175	553
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,275,994	1,266,977	1,420,265	3,963,236
(D) Capacity Factor (%)	77.07	76.52	92.65	81.81
(E) Net mWh Not Generated due to Full Scheduled Outages	90,764	90,900	58,514	240,178
(F) Scheduled Outages: percent of Period Hrs	5.48	5.49	3.82	4.96
(G) Net mWh Not Generated due to Partial Scheduled Outages	171,278	175,719	57,051	404,048
(H) Scheduled Derates: percent of Period Hrs	10.35	10.61	3.72	8.34
(I) Net mWh Not Generated due to Full Forced Outages	422	4,665	0	5,087
(J) Forced Outages: percent of Period Hrs	0.03	0.28	0.00	0.11
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	2,263	2,263
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.15	0.05
(M) Net mWh Not Generated due to Economic Dispatch	117,182	117,379	0	229,468
(N) Economic Dispatch: percent of Period Hrs	7.08	7.09	0.00	4.74
(O) Net mWh Possible in Period	1,655,640	1,655,640	1,533,000	4,844,280
(P) Equivalent Availability (%)	84.15	83.61	92.31	86.55
(Q) Output Factor (%)	81.76	81.65	96.63	86.49
(R) Heat Rate (BTU/NkWh)	11,304	11,119	0	7,194

Notes:

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- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
December, 2017 through November, 2018**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,482,101	1,493,192	1,953,634	4,928,927
(D) Capacity Factor (%)	78.39	78.98	89.93	82.79
(E) Net mWh Not Generated due to Full Scheduled Outages	105,660	105,516	125,182	336,358
(F) Scheduled Outages: percent of Period Hrs	5.59	5.58	5.76	5.65
(G) Net mWh Not Generated due to Partial Scheduled Outages	204,932	200,535	1,488	406,956
(H) Scheduled Derates: percent of Period Hrs	10.84	10.61	0.07	6.84
(I) Net mWh Not Generated due to Full Forced Outages	4,108	277	0	4,385
(J) Forced Outages: percent of Period Hrs	0.22	0.01	0.00	0.07
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	805	805
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.04	0.01
(M) Net mWh Not Generated due to Economic Dispatch	93,871	91,151	91,371	276,393
(N) Economic Dispatch: percent of Period Hrs	4.96	4.82	4.21	4.64
(O) Net mWh Possible in Period	1,890,672	1,890,672	2,172,480	5,953,824
(P) Equivalent Availability (%)	83.37	83.81	94.13	87.43
(Q) Output Factor (%)	83.78	83.72	95.43	88.02
(R) Heat Rate (BTU/NkWh)	11,293	11,267	0	6,809

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
December, 2017 through November, 2018**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,124,189	1,137,020	1,271,372	3,532,581
(D) Capacity Factor (%)	57.27	57.92	53.62	56.10
(E) Net mWh Not Generated due to Full Scheduled Outages	247,766	269,815	252,956	770,538
(F) Scheduled Outages: percent of Period Hrs	12.62	13.75	10.67	12.24
(G) Net mWh Not Generated due to Partial Scheduled Outages	220,747	203,720	45,547	470,015
(H) Scheduled Derates: percent of Period Hrs	11.25	10.38	1.92	7.46
(I) Net mWh Not Generated due to Full Forced Outages	132,765	167,209	502,118	802,091
(J) Forced Outages: percent of Period Hrs	6.76	8.52	21.18	12.74
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	16,823	16,823
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.71	0.27
(M) Net mWh Not Generated due to Economic Dispatch	237,516	185,220	282,168	704,905
(N) Economic Dispatch: percent of Period Hrs	12.10	9.44	11.90	11.19
(O) Net mWh Possible in Period	1,962,984	1,962,984	2,370,984	6,296,952
(P) Equivalent Availability (%)	69.36	67.35	65.57	67.29
(Q) Output Factor (%)	78.24	79.19	78.75	78.73
(R) Heat Rate (BTU/NkWh)	11,388	11,373	0	7,285

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
December, 2017 through November, 2018**

Mayo Station

Units	Unit 1
(A) MDC (mW)	746
(B) Period Hrs	8,760
(C) Net Generation (mWh)	1,462,376
(D) Net mWh Possible in Period	6,534,960
(E) Equivalent Availability (%)	71.53
(F) Output Factor (%)	41.07
(G) Capacity Factor (%)	22.38

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
December, 2017 through November, 2018**

Roxboro Station

Units	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	8,760	8,760	8,760
(C) Net Generation (mWh)	1,896,507	1,539,629	1,631,200
(D) Net mWh Possible in Period	5,895,480	6,114,480	6,228,360
(E) Equivalent Availability (%)	77.68	61.09	53.00
(F) Output Factor (%)	52.43	49.61	56.28
(G) Capacity Factor (%)	32.17	25.18	26.19

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
November, 2018

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<u>Unit Name</u>	<u>Capacity Rating (mW)</u>	<u>Full Outage Hours</u>		<u>Total</u>
		<u>Scheduled</u>	<u>Unscheduled</u>	
Brunswick 1	938	0.00	0.00	0.00
Brunswick 2	932	0.00	0.00	0.00
Harris 1	932	0.00	0.00	0.00
Robinson 2	741	617.70	0.00	617.70

Duke Energy Progress
Outages for 100 mW or Larger Units
November 2018

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Asheville Steam 1	192	0.00	208.00	208.00
Asheville Steam 2	192	0.00	0.00	0.00
Asheville CT 3	185	0.00	36.78	36.78
Asheville CT 4	185	245.83	0.00	245.83
Darlington CT 12	133	721.00	0.00	721.00
Darlington CT 13	133	108.00	0.00	108.00
Lee Energy Complex CC 1A	225	0.00	0.00	0.00
Lee Energy Complex CC 1B	227	0.00	0.00	0.00
Lee Energy Complex CC 1C	228	0.00	0.00	0.00
Lee Energy Complex CC ST1	379	0.00	0.00	0.00
Mayo Steam 1	746	721.00	0.00	721.00
Richmond County CT 1	189	114.80	0.00	114.80
Richmond County CT 2	187	113.62	0.00	113.62
Richmond County CT 3	185	211.18	0.00	211.18
Richmond County CT 4	186	113.13	0.00	113.13
Richmond County CT 6	187	181.72	0.00	181.72
Richmond County CC 7	189	0.00	0.00	0.00
Richmond County CC 8	189	0.00	20.48	20.48
Richmond County CC ST4	175	0.00	0.00	0.00
Richmond County CC 9	216	0.00	0.00	0.00
Richmond County CC 10	216	0.00	0.00	0.00
Richmond County CC ST5	248	0.00	0.00	0.00

Notes:

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Duke Energy Progress
Outages for 100 mW or Larger Units
November 2018

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Roxboro Steam 1	380	0.00	35.22	35.22
Roxboro Steam 2	673	145.30	31.80	177.10
Roxboro Steam 3	698	639.65	0.00	639.65
Roxboro Steam 4	711	721.00	0.00	721.00
Sutton Energy Complex CC 1A	224	12.00	0.00	12.00
Sutton Energy Complex CC 1B	224	12.00	140.47	152.47
Sutton Energy Complex CC ST1	271	0.00	721.00	721.00
Wayne County CT 10	192	0.00	0.00	0.00
Wayne County CT 11	192	156.00	0.00	156.00
Wayne County CT 12	193	0.00	0.00	0.00
Wayne County CT 13	191	184.00	0.00	184.00
Wayne County CT 14	195	22.75	0.00	22.75

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.